

REMARKS

By this amendment, claims 6, 21 and 24 has been amended. Claims 1-5 and 8-19 have been previously withdrawn. Accordingly, claims 6, 7 and 20-25 are currently pending in the application, of which claim 6 is independent.

In view of the above amendments and the following Remarks, Applicant respectfully requests reconsideration and timely withdrawal of the pending objections and rejections for the reasons discussed below.

Claim Objection

In the Office Action, claim 6, 21 and 24 have been objected to for informality and ambiguity issues. This objection is respectfully traversed.

In this response, claim 6 has been amended to replace “the black matrix” with --a black matrix--. Also, claims 21 and 24 have been amended to read “wherein the plurality of color filters comprise a first color filter and a second color filter, *the second color filter neighboring and overlapping the first color filter over the data line*”.

Accordingly, Applicant respectfully requests withdrawal of the objection for claim 6.

Rejections Under 35 U.S.C. § 102

Claim 6 stands rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by U. S. Patent No. 5,568,293 issued to Takao, *et al.* (“Takao”). Applicant respectfully traverses this rejection for at least the following reasons.

Independent claim 6 recites:

“6. A method for fabricating a liquid crystal display, the method comprising a step of:
sequentially forming a plurality of color filters neighboring each other on a substrate, each color filter having a flat central portion and *a peripheral portion placed on a black matrix*, wherein the peripheral portion is tapered as advancing from an interface with the flat central portion toward the neighboring color filters.”

Thus, according to claim 6, the color filters are formed on the substrate and the peripheral portion is formed on the black matrix. An example of these claimed features is shown in Fig. 2 of the present application, in which the color filters (R, G, B) are formed on the substrate 200 and the peripheral portion of the color filter is placed on the black matrix 210.

In this regard, the Examiner referred to Figs. 11A to 11F of Takao and asserted “As broadly interpreted, each color resin pattern has a peripheral portion that touches a black matrix (light interception layer 117 formed in conformity with gap between respective units of color pattern layers)” (Office Action, page 5). This assertion is respectfully disagreed with.

Although it is not shown in any of Figs. 11A to 11F, Takao describes “Next, on the glass substrate having the colored pattern of the three colors formed thereon, ... a light intercepting layer 117 with a light intercepting pattern is formed in conformity with the gap between the respective units ... by use of a black colored resin material” (column 19, lines 18-23).

In other words, the light intercepting layer 117 is formed after the colored patterns 114, 115, 116 are formed on the glass substrate 111. Logically, this means that the light intercepting layer 117 is formed on the colored patterns 114, 115, 116 to fill the gap therebetween. It is logically impossible that the colored patterns 114, 115, 116 are formed on the light intercepting layer 117.

Regarding the Examiner's logical premise that "if A touches B, B is placed on A", it is respectfully submitted that this premise is a logically leap. If a chair is placed on a floor, this does *not* mean that the floor is placed on the chair simply because the chair touches the floor.

For these reasons, it is submitted that Takao fails to disclose or suggest "a peripheral portion placed on a black matrix", as claimed. Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. § 102(b) rejection of claim 6.

Claim 6 stands rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by U. S. Patent No. 6,271,902 issued to Ogura, *et al.* ("Ogura"). Applicant respectfully traverses this rejection for at least the following reasons.

Claim 6 recites "each color filter having a flat central portion and a peripheral portion ..., wherein the peripheral portion is *tapered as advancing from an interface with the flat central portion* toward the neighboring color filters".

An example of this claimed feature is shown in Fig. 2 of the present application, in which each color filter, for example, the color filter R, having a flat central portion and a peripheral portion, which is tapered as advancing from the interface with the flat central portion toward the neighboring color filters B and G. In this regard, the Examiner stated Figs. 3A-3G disclose this claimed feature. This assertion is respectfully disagreed with.

In Fig. 3G of Ogura, the color filter B has a flat central portion and a peripheral portion. The peripheral portion becomes *thicker* as advancing from the interface with the flat central portion to the portion where the color filter B overlaps the color filter G. Then, the peripheral portion is tapered as advancing from the portion where the color filter B overlaps the color filter G.

Thus, Ogura fails to disclose or suggest “each color filter having a flat central portion and a peripheral portion ..., wherein the peripheral portion is *tapered as advancing from an interface with the flat central portion* toward the neighboring color filters”. Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. § 102(b) rejection of claim 6.

Rejections Under 35 U.S.C. § 103

Claims 7 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Takao in view of U. S. Patent No. 5,725,975 issued to Nakamura, *et al.* (“Nakamura”). Applicant respectfully traverses this rejection for at least the following reasons.

Claim 7 is dependent from claim 6. As previously mentioned, claim 6 is believed to patentable over Takao. For example, Takao fails to disclose or suggest “a peripheral portion placed on a black matrix”.

Nakamura is directed to a gradation mask having at least three different transmittances. However, Nakamura does not disclose or suggest a peripheral portion of a color filter placed on a black matrix. Thus, Nakamura fails to cure the deficiency from Takao.

Since none of the cited references discloses or suggests this claimed feature, the subject matter of claim 6 would not have been obvious over them. Thus, it is submitted that claim 6 is patentable over Takao and Nakamura. Claim 7 that is dependent from claim 6 would be also patentable at least for the same reason.

Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. § 103(a) rejection of claim 7.

Claims 7 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Ogura in view of U. S. Patent No. 5,725,975 issued to Nakamura, *et al.* (“Nakamura”). Applicant respectfully traverses this rejection for at least the following reasons.

Claim 7 is dependent from claim 6. As previously mentioned, claim 6 is believed to patentable over Ogura. For example, Ogura fails to disclose or suggest “each color filter having a flat central portion and a peripheral portion ..., wherein the peripheral portion is *tapered as advancing from an interface with the flat central portion* toward the neighboring color filters”.

Nakamura is directed to a gradation mask having at least three different transmittances. However, Nakamura does not disclose or suggest a peripheral portion of a color filter *tapered as advancing from an interface with the flat central portion* toward the neighboring color filters. Thus, Nakamura fails to cure the deficiency from Ogura.

Since none of the cited references discloses or suggests this claimed feature, the subject matter of claim 6 would not have been obvious over them. Thus, it is submitted that claim 6 is patentable over Ogura and Nakamura. Claim 7 that is dependent from claim 6 would be also patentable at least for the same reason.

Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. § 103(a) rejection of claim 7.

Claims 20-25 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Takao in view of U. S. Patent No. 6,567,150 issued to Kim (“Kim”). Applicant respectfully traverses this rejection for at least the following reasons.

Claims 20-25 are dependent from claim 6. As previously mentioned, claim 6 is believed to be patentable over Takao. For example, Takao fails to disclose or suggest “a peripheral portion placed on a black matrix”.

Kim is directed to simultaneously patterning the intrinsic semiconductor material and the first insulating material to form a semiconductor layer, a gate insulating layer and a gate protecting layer. However, Kim does not disclose or suggest a peripheral portion of a color filter placed on a black matrix. Thus, Nakamura fails to cure the deficiency from Takao.

Also, claim 20 recites the plurality of gate lines, the data lines, thin film transistors and pixel electrodes are formed on the same substrate on which the color filters are formed. In this regard, both Takao and Kim fails to disclose or suggest this claimed feature.

Since none of the cited references discloses or suggests these claimed features, the subject matter of claim 6 would not have been obvious over them. Thus, it is submitted that claim 6 is patentable over Takao and Kim. Claims 20-25 that are dependent from claim 6 would be also patentable at least for the same reason.

Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. § 103(a) rejection of claims 20-25.

Claims 20-25 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Ogura in view of Kim. Applicant respectfully traverses this rejection for at least the following reasons.

Claims 20-25 are dependent from claim 6. As previously mentioned, claim 6 is believed to be patentable over Ogura. For example, Ogura fails to disclose or suggest “each color filter having a flat central portion and a peripheral portion ..., wherein the peripheral portion is

tapered as advancing from an interface with the flat central portion toward the neighboring color filters".

Kim is directed to simultaneously patterning the intrinsic semiconductor material and the first insulating material to form a semiconductor layer, a gate insulating layer and a gate protecting layer. However, Kim does not disclose or suggest "each color filter having a flat central portion and a peripheral portion ..., wherein the peripheral portion is *tapered as advancing from an interface with the flat central portion toward the neighboring color filters*". Thus, Nakamura fails to cure the deficiency from Ogura.

Also, claim 20 recites the plurality of gate lines, the data lines, thin film transistors and pixel electrodes are formed on the same substrate on which the color filters are formed. In this regard, both Ogura and Kim fail to disclose or suggest this claimed feature.

Since none of the cited references discloses or suggests these claimed features, the subject matter of claim 6 would not have been obvious over them. Thus, it is submitted that claim 6 is patentable over Ogura and Kim. Claims 20-25 that are dependent from claim 6 would be also patentable at least for the same reason.

Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. § 103(a) rejection of claims 20-25.


CONCLUSION

Applicant believes that a full and complete response has been made to the pending Office Action and respectfully submits that all of the stated objections and grounds for rejection have been overcome or rendered moot. Accordingly, Applicant respectfully submits that all pending claims are allowable and that the application is in condition for allowance.

Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact the Applicant's undersigned representative at the number below to expedite prosecution.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,



Hae-Chan Park
Reg. No. 50,114

Date: October 12, 2004

McGuireWoods LLP
1750 Tysons Boulevard
Suite 1800
McLean, VA 22102-4215
Tel: 703-712-5365
Fax: 703-712-5280
HCP:WSC/gjb

\\COM\433042.1